

IN THE SPECIFICATION:

Please amend the paragraphs starting at page 1, line 6, and ending at page 2, line 14, as follows.

--The present invention relates to an image output control apparatus connected to plural image output devices through communication media, capable of controlling to output of images of predetermined input data using the plural image output devices, a control method of the image output control apparatus and a storage medium thereof.

Related Background Art

There has been known an image formation system of connecting plural image output devices such as digital copying machines, printers and the like through communication media, which is capable of controlling from a host computer such as a PC (personal computer) or the digital copying machine to output of images using the plural image output devices.

In recent years, in such ~~the~~ an image formation system, dispersive output processing of dispersively executing an image output based on predetermined data stored in or generated by the host computer or the digital copying machine using the plural image output devices comes to be realized. For example, there has been proposed an image formation system of realizing an operation mode called ~~as~~ cascade copying for outputting image data inputted by reading originals by a scanner unit equipped in an image output device, using the plural image output devices, ~~has been proposed~~.

In this image formation system, in the case of performing a copying operation of a large number of originals, a set number of copies can be dispersively copied by distributing

the set number of copies to the plural image output devices by selecting a cascade copying mode. Accordingly, a time taken in finishing a copying operation of the set number of copies can be shortened as compared with a case of copying the set number of copies using the one device. As a result, image output reproducibility can be improved.--

Please amend the paragraphs starting at page 2, line 21, and ending at page 3, line 20, as follows.

--Also, it is required to set various output functions or output forms (in the present application, called as an image output mode) such as the following conditions. That is, for example, the copying operation is performed or not performed by two-sided copying, what size (A4, B4, etc.) and what kind (sheet quality, thickness and color) of output media should be used for outputting images, whether an image is to be outputted by monochrome or color, and the like.

In recent years, the image formation system is constituted by the plural image output devices of which functions are different from each other. In this case, since the image output mode which can be realized by ~~the~~ each image output device is sometimes ~~differed~~ different from ~~the~~ image output mode of another image output device, there occurred a case that a selection of the devices and setting of the image output mode become complex or an erroneous image output is performed.

To cope with the above-described problems ~~occurred~~ occurring when the dispersive output processing such as the cascade copying or the like is executed, the present applicant applies "image output device priority setting" and "image output mode priority setting".

Such ~~the~~ image output device priority setting and ~~the~~ image output mode priority setting were not yet known when the priority Japanese patent applications of the present U.S. application were filed in Japan.--

Please amend the paragraphs starting at page 5, line 17, and ending at page 8, line 18, as follows.

--Therefore, after the operator performs various settings, when a start instruction of the cascade copying is given, or when it is started to output images upon giving the start instruction of the cascade copying, the operator first notices that the images ~~can not~~ cannot be outputted because the selected plural image output devices do not have the same size or the same kind of output media. That is, there occurred a problem that various setting operations ~~of before~~ performed previously result ~~are resulted~~ in wasted effort.

In order to avoid this kind of erroneous setting operation, the operator has to previously confirm or grasp whether or not the same size or the same kind of output media are stored ~~every the~~ in each selected image output device. After all, there ~~occurred~~ remains a problem that simplification in the selection of the image output device and the setting of the image output mode according to the image output device priority setting ~~can not~~ cannot be achieved.

These problems ~~were~~ commonly occurred not only in a case of performing the cascade ~~copying~~ copying, but also in a case of performing the image output device priority setting in an image processing system capable of executing the dispersive output processing.

SUMMARY OF THE INVENTION

The present invention can solve the above-described problems, and an object of the present invention is to provide an image output control apparatus which can prevent a state that after an operator performs various settings, when a start instruction of cascade copying is given, or when it is started to output images upon giving the start instruction of the cascade copying, the operator first notices that the images ~~can not~~ cannot be outputted because selected plural image output devices do not have the same size output media, ~~and such that~~ various setting operations ~~of before performed are resulted~~ performed before resulted in wasted effort;. The present invention is also directed to a control method of the above-discussed image output control apparatus and a storage medium thereof.

Another object of the present invention is to provide an image output control apparatus which can prevent a state that after the operator performs the various settings, when the start instruction of the cascade copying is given, or when it is started to output the images upon giving the start instruction of the cascade copying, the operator first notices that the images ~~can not~~ cannot be outputted because the selected plural image output devices do not have the same size and the same kind of output media, ~~and such that~~ the various setting operations ~~of before performed are resulted~~ performed before result in the wasted effort;. The invention is also directed to a control method of the above-discussed image output control apparatus and a storage medium thereof.

Still another object of the present invention is to eliminate the necessity that the operator has to previously confirm or grasp whether or not the same size or the same kind of output media ~~are~~ is stored in every ~~the each~~ selected image output device, and is to

provide an image output control apparatus which can surely achieve the simplification in the selection of the image output device and the setting of the image output mode according to the image output device priority setting, a control method of the image output control apparatus and a storage medium thereof.

As one of the means for achieving the above objects, the present invention provides the image output control apparatus connected to the plural image output devices through communication media, capable of controlling to output of images of predetermined input data using the plural image output devices, comprising:

- a selection means for selecting the plural image output devices for outputting images;

- an obtaining means for obtaining output media information stored in each image output device among the plural image output devices selected by the selection means;

- a judgment means for judging whether or not the plural image output devices selected by the selection means store the same-sized output media on the basis of the output media information obtained by the obtaining means; and

- a notification means for notifying a judgment result obtained by the judgment means.--

Please amend the paragraph starting at page 9, line 7, and ending at line 8, as follows.

--Fig. 4 is a ~~plane~~ plan view for explaining the structure of an operation unit shown in Fig. 1;--

Please amend the paragraph starting at page 13, line 11, and ending at line 21, as follows.

--Hereinafter, the structure of the image output device to which the image output control apparatus can be adopted will be explained with reference to the image output device 200. The image output devices 200, 220, 230, 240 and 250 may be the image output devices having identical image output functions (media size for images which can be outputted, the kind of medium for images which can be outputted, sorting function, two-sided copying function and the like) as each other or may be the image output devices having different image output functions than each other.--

Please amend the paragraph starting at page 16, line 22, and ending at line 26, as follows.

--Fig. 3 is a view showing an external appearance of the image output device 200 including the scanner unit 2070 and the printer unit 2095 shown in Fig. 1. In Fig. 3, the same parts as those in Fig. 1 are ~~added~~ provided with the same numerals respectively.--

Please amend the paragraph starting at page 25, line 10, and ending at line 16, as follows.

--The image data obtained by reading the originals, an output request command based on the setting performed in the operation unit 2012, and the like are transmitted to the selected each image output device through the LAN 2011. In ~~the~~ each image output device, an image output based on the received image data ~~are~~ is performed.--

Please amend the paragraph starting at page 29, line 24, and ending at page 30, line 6, as follows.

--The image output device of the present invention can perform an output operation to a remote image output device connected through the LAN (called remote copying) or perform the cascade copying. However, as an initial status, it is set to perform the image output operation to ~~the~~ its own device (called local copying). The setting status of the image output device selection of performing the local copying, the remote copying or the cascade copying is displayed on the display area 3015.--

Please amend the paragraph starting at page 32, line 2, and ending at line 14, as follows.

--Fig. 10 is a view showing an operation setting screen (output device selection window) of the image output device to which the image output control apparatus of the present invention can be adopted. This screen corresponds to a setting screen after depressing the cascade key 3204 on the setting screen shown in Fig. 9. The check marks are displayed on the left-edge field 3301 of a numeral 3302 being the image output device displayed on the uppermost position in the list and a numeral 3303 being the image output device displayed on a second upper position in the list. In Fig. 10, the same parts as those in Fig. 9 are ~~added~~ provided with the same numerals respectively.--

Please amend the paragraph starting at page 32, line 19, and ending at line 24, as follows.

--Then, when the cascade key 3204 is once depressed, it is shifted to a setting mode of selecting the image output device used for the cascade copying, and ~~the~~ its own device being the image output device of which name is displayed on the uppermost position in the list and the other optional one image output device can be selected.--

Please amend the paragraph starting at page 36, line 21, and ending at page 37, line 4, as follows.

--On the other hand, in the step S203, when it is judged that the input event is not the depressing or touching of the scroll key (scroll button) 3202, it is judged whether or not the input event is the depressing or touching of an item in the image output device list 3210 in the step S204. When it is judged that the input event is the depressing or touching of the item in the image output device list 3201, in the step S209, a background of the depressed or touched list item is displayed in light blue ~~displayed~~ (so called a reversely display), and the flow advances to the step S210.--

Please amend the paragraph starting at page 38, line 11, and ending at line 21, as follows.

--In the step S213, when it is judged that the cascade setting is in the possible state, the CPU 2001 obtains output media information of the local image output device being ~~the~~ its own device and further obtains output media information of the selected remote image

output device through the network interface 2010 in the step S214. The output media information is not limited to information related to what size and what kind of the output media are distributed to and held in the each cassette stage but may include information of that no output media is held in the each cassette stage.--

Please amend the paragraph starting at page 41, line 14, and ending at line 20, as follows.

--In the first embodiment, in the image output devices to which the image output control apparatus of the present invention can be adopted, the structure of displaying the window for notifying the warning (the warning window shown in Fig. 12) in case of ~~not existing~~ the same-sized output media not existing when the cascade copying is performed, was explained.--

Please amend the paragraph starting at page 43, line 1, and ending at line 8, as follows.

--The operation setting screens regarding an operation of the cascade copying in the present embodiment are the same as those shown in Figs. 8 to 11 indicated in the first embodiment, and the screen change processing procedure also corresponds to that in the above operation setting screens, it is the same as the processing in the second control processing indicated by the flow charts shown in Figs. 13 and 14.--

Please amend the paragraph starting at page 43, line 24, and ending at page 44, line 3, as follows.

--At first, similar to the first embodiment, in the step S218, it is judged whether or not the cascade setting is in the possible state. When it is judged that the cascade setting is in the possible state, the CPU 2001 obtains output media information of the local image output device being ~~the~~ its own device and the remote image output device in the step S219.--

Please amend the paragraph starting at page 46, line 2, and ending at line 9, as follows.

--In the present embodiment, a display control based on the size and kind of output media has been explained. However, it is needless to say that the present invention is not limited to this case but may be structured such that the warning is given only when the same-kind output media ~~do~~ does not exist without ~~regarding~~ regard to the size of output media and the selection of the image output devices is canceled.--

Please amend the paragraph starting at page 48, line 9, and ending at line 14, as follows.

--Therefore, in a case where the same-sized or same-kind output media ~~do~~ does not exist in the two devices, the various setting operations performed by the operator after the depression of the cascade key (“Cascade” button) until the depression of the done key (“Done” button) 3205 ~~are resulted~~ result in the wasted operation.--

Please amend the paragraph starting at page 51, line 5, and ending at line 12, as follows.

--However, the present invention is not limited to ~~be applied to~~ use in the image output device. Particularly, in an image formation system structured by a PC and the plural image output devices, in case of executing dispersive print processing in which the PC is treated as a host computer, the control processing as explained in the first to third embodiments can be executed by applying the present invention to the PC.--

Please amend the paragraph starting at page 51, line 22, and ending at page 52, line 6, as follows.

--A PC 260 can communicate with the image output devices 200 to 250 through the LAN 2011 and can obtain device information (output media information, device information or the like) of the image output devices. The PC 260 can instruct print processing based on data generated by or stored in the PC 260 to the image output devices 200 to 250. For example, in case of printing out image data edited by the PC on the plural

numbers of copies, the dispersive print processing of causing the image ~~out put~~ output devices 200 and 220 to perform the dispersive print of dispersively outputting images on the set numbers of copies can be executed.--

Please amend the paragraph starting at page 53, line 11, and ending at line 16, as follows.

--Hereinafter, the processing regarding the output media after depressing the done key ("Done" button), before ~~that~~ the above-described dispersive print processing and the programs of the control processing for the image output device priority setting were executed, will be explained.--

Please amend the paragraphs starting at page 54, line 4, and ending at line 20, as follows.

--Here, the output media information is not limited to information related to what size and what kind of output media are distributed to and held in the each cassette stage but may include information ~~of~~ that no output media is held in the each cassette stage.

In the step S226, it is judged whether or not the same-sized output media exist in the selected image output device on the basis of the output media information obtained in the step S225. In this judgment, in a case where the selected two image output devices do not have the cassette stage which can hold the same-sized output media or in a case where even if the selected two image output devices have the cassette stage which can hold the

same-sized output media, ~~the~~ one of the image output devices does not have that output media, it is judged that the same-sized output media do not exist.--

Please amend the paragraph starting at page 55, line 23, and ending at page 56, line 4, as follows.

--It is not required to ~~structured~~ structure such that the dispersive print processing is controlled by only the one device. For example, it may be structured such that a print server (not shown) is to be equipped with a printer automatic selection function, a printer information obtaining function and the like, and the PC is to be equipped with the function for performing only the various settings and displaying when the dispersive print processing is executed.--

Please amend the paragraphs starting at page 58, line 10, and ending at page 59, line 11, as follows.

--It is needless to say that the present invention also includes not only the case where the functions of the above-described embodiments are realized by the execution of the program codes read by the computer, but also a case where an OS or the like functioning on the computer executes all the ~~process~~ processes or a part thereof according to the instructions of the program codes, thereby realizing the functions of the embodiments.

Further, it is needless to say that the present invention includes a case where the program codes read from the storage medium are ~~once~~ stored in a memory provided in a

function expansion board inserted in the computer or a function expansion unit connected to the computer, and a CPU or the like provided in the function expansion board or the function expansion unit executes all the process or a part thereof according to the instructions of such the program codes, thereby realizing the functions of the embodiments.

The present invention is applicable to a system composed of plural pieces of equipments equipment or to an apparatus including a single piece of equipment. It is needless to say that the present invention is applicable to a case where the object is achieved by supplying the programs to the system or the apparatus. In this case, the system or the apparatus can accept an effect of the present invention by reading the storage medium storing the programs represented by software for achieving the object of the present invention for the system or the apparatus.--